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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,255	02/07/2001	Klaus Gaedke	PD000003	6369

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EXAMINER
REKSTAD, ERICK J

ART UNIT	PAPER NUMBER
2613	

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/778,255	GAEDKE ET AL.
	Examiner	Art Unit	
	Erick Rekstad	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09 July 2004</u>.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-10</u> is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-10</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☒ All   b)☐ Some * c)☐ None of:
   1.☒ Certified copies of the priority documents have been received.
   2.☐ Certified copies of the priority documents have been received in Application No. _____.
   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This is an allowance for application no. 09/778,255 in response to the

amendment filed on July 9, 2004 in which claims 1-10 are presented for examination.

Response to Arguments

Applicant's arguments with respect to claims 1-10 have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 are rejected under 35 U.S.C. 103(a) as being unpatentable over US

Patent 5,566,208 to Balakrishnan in view of US Patent 6,061,404 to Yonemitsu et al.

[claims 1 and 6]

As shown in Figures 3 and 4, Balakrishnan teaches the method and apparatus

for bitrate control in a video or audio encoder having an encoded-data buffer (20),

including the steps:

Using a first control signal representing the current filling level of said encoded-

data buffer to control the video or audio encoder output bitrate by corresponding

adaptation of at least one encoding parameter used in said video or audio encoder (Col

12 Lines 3-19).

Passing the encoded video or audio data through said encoded-data buffer and through a downstream input buffer (54) wherein said encoded video or audio data after passing through said encoded-data buffer (20), pass through said input buffer (54) together with data from at least one other encoded data stream before being transmitted, thereby controlling said at least one encoding parameter additionally by a second control signal (52) representing the current filling level of said input buffer (54) to avoid overflow and underflow of said input buffer (Col 3 Lines 65-67, Col 4 Lines 28-35, Col 12 Lines 3-40, Col 13 Lines 59-67). Balakrishnan does not the storage of the encoded signal only the transmission of the signal to a decoder.

As shown in Figure 3, Yonemitsu teaches the transmission of the encoded video to an optical disk. Yonemitsu further teaches the optical disk is an alternative to broadcast or communication (Col 9 Line 47-Col 10 Line 19). It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the decoder of Balakrishnan with the optical disk of Yonemitsu as the optical disk is an alternative to broadcasting.

[claims 2 and 7]

Balakrishnan teaches use of mpeg encoding (Col 4 Lines 1-3). Balakrishnan further suggest MPEG-1 or MPEG-2 (Col 5 Lines 39-43). Yonemitsu also teaches the use of mpeg encoding (Col 4 Lines 43-47). It would have been obvious to one of ordinary skill in the art at the time of the invention to use mpeg as it is a well known standard as taught by Balakrishnan (Col 1 Lines 54-57).

[claims 3 and 8]

Yonemitsu teaches the recording on an optical disk. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a DVD as DVDs are optical disks (OFFICIAL NOTICE).

[claims 4 and 9]

As shown in Figure 3, Balakrishnan teaches the use of a quantizer (40) to adjust the bitrate in order to prevent overflow and underflow (Col 5 Lines 19-43, Col 13 Lines 14-26). It would have been obvious to control the quantizer in order to prevent overflow and underflow as taught by Balakrishnan.

Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balakrishnan and Yonemitsu as applied to claims 1 and 6 above, and further in view of US Patent 6,584,272 to Fokushima et al.

[claims 3 and 8]

Yonemitsu teaches the recording on an optical disk. Further as shown above Balakrishnan and Yonemitsu teach the use of mpeg encoding such as MPEG-1 and MPEG2. Balakrishnan and Yonemitsu do not teach the recording on a DVD. Fokushima teaches the recording of MPEG-2 onto DVD-RAM as prior art (Col 1 Lines 15-22). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a DVD as DVDs are optical disks and further it is well known in the art to record MPEG-2 video onto DVD-RAM as taught by Fokushima.

Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balakrishnan and Yonemitsu as applied to claims 1 and 6 above, and further in view of

US Patent 6,584,272 to Fokushima et al., US Patent 5,661,526 to Hamamoto et al. and

US Patent 5,805,763 to Lawler et al.

[claims 5 and 10]

Balakrishnan and Yonemitsu teach the method and apparatus for bitrate control

in a video or audio encoder as shown for claims 1 and 6. Balakrishnan and Yonemitsu

do not teach the data stream input to said video or audio encoder is an MPEG data

stream and includes data –e.g. EPG data- concerning the temporal length or data

concerning the amount of data for a program to be recorded, from which data, based on

the initial or currently remaining program length and a desired average data rate, and

based on the initial or currently remaining storage capacity for this program on said

storage medium, said at least one encoding parameter is additionally controlled.

As shown in Figure 9, Hamamoto teaches a recording system which adjusts the

recording quality based on the amount of remaining tape. Hamamoto further teaches

the use of program information provided in the NTSC broadcast signal to obtain the

length of the desired program (Col 3 Lines 49-60, Col 6 Lines 10-25 and 45-59, Fig. 10).

Hamamoto does not teach the input signal is an mpeg stream. Hamamoto further does

not teach the recording on a disk.

Fukushima teaches the method of determining the remaining amount of space on

a disk and adjusting the encoding process in order to fit a desired amount of broadcast

video on the disk (Col 2 Lines 21-29 and 36-43, Col 4 Lines 7-11 and 59-64, Col 7 Lines

5-17, Figs. 1, 3, 4 and 6). Fukushima further teaches the use of MPEG-2 encoding as

the desired format of the video for storage (Col 1 Line 66-Col 2 Line 8). Fukushima

does not teach specifically how to adjust the encoding process. As shown above in the rejection of claims 1 and 6, Balakrishnan and Yonemitsu teach the adjusting of the quantizer in order to reduce the quality and thus bit-rate of the mpeg stream. It would have been obvious to one of ordinary skill in the art at the time of the invention to adjust the quantizer in order to store the program on the remaining space on the disk. It would have been obvious to one of ordinary skill in the art to combine the method and system of Balakrishnan and Yonemitsu with the method of Fukushima in order to adjust the recording of a broadcast video stream based also on available disk space. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method and apparatus of Balakrishnan, Yonemitsu and Fukushima with the program time detection of Hamamoto in order to obtain the time of the program automatically and adjust the recording based on the remaining time and available disk space. Fukushima does not teach the input stream is an mpeg stream including EPG data.

Lawler teaches the use of an analog video signal or a digital video signal in the standard MPEG-2 format containing EPG data in order to control the recording of a program (Col 3 Lines 63-67, Col 4 Lines 35-50, Col 7 Lines 10-19, Col 12 Lines 29-43 and 58-67, Col 13 Lines 13-25, Fig. 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method and system of Balakrishnan, Yonemitsu, Fukushima and Hamamoto with the digital video signal of Lawler as the digital mpeg signal is a well known alternative to analog signals.

Fukushima teaches the method of determining the remaining amount of space on a disk and adjusting the encoding process in order to fit a desired amount of broadcast video on the disk (Col 2 Lines 21-29 and 36-43, Col 7-11, 59-64, Col 7 Lines 5-17, Figs. 1, 3, 4, and 6). Fukushima does not teach the obtaining the length of recording from the broadcast video stream. Hamamoto teaches a tape recorder that extracts the program continuation time from a broadcast signal, which carries program time information, in order to compare the remaining recording time available with the program continuation time and adjust the recording speed appropriately (Col 3 Lines 49-60, Fig. 10). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system of Golin with the method of Fukushima in order to adjust the recording of a broadcast video stream based on available disc space. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system of Golin and Fukushima with the program time detection of Hamamoto in order to obtain the time of the program automatically and adjust the recording based on the remaining time and available disc space.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick Rekstad whose telephone number is 703-305-5543. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 703-305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

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